

WO 94/04609, and 93/11253 describe methods for use of vectors described herein, and are incorporated by reference herein. In particular these vectors are useful for administration of antisense and decoy RNA molecules.

Other embodiments are within the following claims.

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Claims

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1. A transcribed non-naturally occurring RNA molecule, comprising a desired therapeutic RNA portion, wherein said molecule comprises an intramolecular stem formed by base-pairing interactions between a 3' region and 5' complementary nucleotides in said RNA, wherein said stem comprises at least 8 base pairs.

2. The RNA molecule of claim 1, wherein said molecule is transcribed by a RNA polymerase III based promoter system.

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3. The RNA molecule of claim 1, wherein said molecule is transcribed by a type 2 pol III promoter system.

4. The RNA molecule of claim 1, wherein said molecule is a chimeric tRNA.

5. The RNA molecule of claim 3, said RNA having A and B boxes of a type 2 pol III promoter separated by between 0 and 300 bases.

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6. The RNA molecule of claim 3, wherein said desired RNA molecule is at the 3' end of said B box.

7. The RNA molecule of claim 3, wherein said desired RNA molecule is in between the said A and the B box.

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8. The RNA molecule of claim 3, wherein said desired RNA molecule includes said B box.

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9. The RNA molecule of claim 1, wherein said desired RNA molecule is selected from the group consisting of antisense RNA, decoy RNA, therapeutic editing RNA, enzymatic RNA, agonist RNA and antagonist RNA.

10. The RNA molecule of claim 1, wherein said 5' terminus is able to
5 base-pair with at least 12 bases of said 3' region.

11. The RNA molecule of claim 1, wherein said 5' terminus is able to base-pair with at least 15 bases of said 3' region.

12. DNA vector encoding the RNA molecule of claim 1.

13. RNA vector encoding the RNA molecule of claim 1.

10 14. The vector of claim 12 wherein the portions of the vector encoding
said RNA function as a RNA pol III promoter.

15. Cell comprising the vector of claim 12.

16. Cell comprising the vector of claim 13.

17. Cell comprising the RNA of claim 1.

15 18. Method to provide a desired RNA molecule in a cell, comprising introducing said molecule into said cell a RNA comprising a desired RNA molecule, having a 5' terminus able to base pair with at least 8 bases of a 3' region of said RNA molecule.

19. The method of claim 16, wherein said introducing comprises
20 providing a vector encoding said RNA molecule.

20. The RNA molecule of claim 1, wherein said molecule is transcribed by a RNA polymerase II promoter system.

21. The RNA molecule of claim 1, wherein said molecule is transcribed by a U6 small nuclear RNA promoter system.

25 22. The RNA molecule of claim 1, wherein said molecule is transcribed
by an adenovirus VA1 RNA promoter system.

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23. The RNA molecule of claim 1, wherein said molecule is a chimeric adenovirus VA1 RNA.

24. The RNA molecule of claim 1, wherein said intramolecular stem is separated from said desired RNA by spacer sequence.

5 25. The RNA molecule of claim 24, wherein said spacer sequence is about 5-50 nucleotides.

Abstract of the disclosure

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10 A transcribed non-naturally occurring RNA molecule comprising a desired RNA molecule, wherein the 3' region of the RNA is able to base-pair with at least 8 bases at the 5' terminus of the same RNA molecule.

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